Chenyang Zhang [website]

CONTACT INFORMATION

School of Interactive Computing
College of Computing
Georgia Institute of Technology
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RESEARCH INTERESTS

Human-Computer Interaction, AR/VR Interaction, Spatial Computing, Immersive Analytics, Data Visualization, Creative Process

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia USA
Ph.D. in Human-Centered Computing — Aug. 2024 - present
Advisor: Yalong Yang

University of Illinois Urbana-Champaign, Urbana, Illinois USA
Master of Computer Science (MCS) GPA: 3.82/4.0 — Aug. 2022 - Dec. 2023
Advisor: Elahe Soltanaghai, Sarah Sterman

ShanghaiTech University, Shanghai, Shanghai China
B.Eng. in Computer Science GPA: 3.57/4.0 — Sep. 2018 - Jun. 2022
Advisor: Quan Li

RESEARCH EXPERIENCE

Georgia Institute of Technology, Atlanta, Georgia USA

Graduate Research Assistant (Advisor: Yalong Yang) — 2024 - present
I believe everyone should have the power to shape their own immersive experiences. My research focuses on 1) designing intuitive **spatial interactions** for expressive and low-effort input, 2) developing **spatial productivity** tools that blend virtual elements seamlessly into physical environments, and 3) creating **spatial sharing** applications that enrich remote collaboration and communication.

Harvard University, Visual Computing Group, Cambridge, Massachusetts USA

Research Assistant (Advisors: Zhutian Chen, Hanspeter Pfister) — 2023
Adaptive situated visualization through human-AI collaboration, developing a declarative visualization grammar for LLMs and a real-time controller that adapts AR visualizations to designer intent and context.

University of Illinois Urbana-Champaign, Urbana, Illinois USA

Graduate Research Assistant (Advisor: Elahe Soltanaghai) — 2022 - 2023
Intuitive gaze-depth interaction for hands-free selection in VR. Developing a hands-free VR selection method that leverages binocular gaze depth information and conducting multiple user studies to improve usability and learnability through iterative design.

Graduate Research Assistant (Advisor: Sarah Sterman) — 2023
Qualitative study on how documentation shapes teaching and learning in Physical Computing courses, based on open coding of syllabi and interviews with instructors.

ShanghaiTech University, Shanghai, China

Undergraduate Research Assistant (Advisor: Quan Li) — 2021 - 2022
Visual analytics systems for e-commerce, medical research, and system programming.

Undergraduate Research Assistant (Advisor: Shenghua Gao) — 2020 - 2021
Computer vision research on image segmentation applied for medical imaging.

INDUSTRY EXPERIENCE

Google, Seattle, Washington USA

Student Researcher (Advisor: Eric J. Gonzalez, Mar Gonzalez-Franco) — Summer 2025
Bringing web elements into 3D physical space and exploring spatialized web browsing experience in XR headsets.

Publications

Chenyang Zhang, Tiffany S Ma, John Andrews, Eric J Gonzalez, Mar Gonzalez-Franco, Yalong Yang. ForcePinch: Force-Responsive Spatial Interaction for Tracking Speed Control in XR. In *The ACM Symposium on User Interface Software and Technology*.
UIST 2025 · Full Paper

Laixin Xie, **Chenyang Zhang**, Ruofei Ma, Xingxing Xing, Wei Wan, Quan Li. ASight: Fine-tuning Auto-Scheduling Optimizations for Model Deployment via Visual Analytics. In *IEEE Transactions on Visualization and Computer Graphics*.
TVCG · Journal Paper

Yang Ouyang, **Chenyang Zhang**, He Wang, Tianle Ma, Chang Jiang, Yuheng Yan, Zuoqin Yan, Xiaojuan Ma, Chuhan Shi, Quan Li. A Two-Phase Visualization System for Continuous Human-AI Collaboration in Sequelae Analysis and Modeling. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2024)*.
VIS 2024 · Short Paper

Chenyang Zhang*, Tiansu Chen*, Eric Shaffer, Elahe Soltanaghai. FocusFlow: 3D Gaze-Depth Interaction in Virtual Reality Leveraging Active Visual Depth Manipulation. In *The ACM CHI conference on Human Factors in Computing Systems*.
CHI 2024 · Full Paper

Chenyang Zhang*, Tiansu Chen*, Rohan Nedungadi, Eric Shaffer, Elahe Soltanaghai. FocusFlow: Leveraging Focal Depth for Gaze Interaction in Virtual Reality. In *The ACM Symposium on User Interface Software and Technology*.
UIST 2023 · Demo

Chen Zhu-Tian, **Chenyang Zhang**, Qianwen Wang, Jakob Troidl, Simon Warchol, Johanna Beyer, Nils Gehlenborg, Hanspeter Pfister. Beyond Generating Code: Evaluating GPT on a Data Visualization Course. In *IEEE VIS Workshop on Visualization Education, Literacy, and Activities*.
VIS 2023 · EduVis Workshop

Yang Ouyang, Yuchen Wu, He Wang, **Chenyang Zhang**, Furui Cheng, Chang Jiang, Lixia Jin, Yuanwu Cao, Quan Li. Leveraging Historical Medical Records as a Proxy via Multimodal Modeling and Visualization to Enrich Medical Diagnostic Learning. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2023)*.
VIS 2023 · Full Paper

Chenyang Zhang, Xiyuan Wang, Chuyi Zhao, Yijing Ren, Tianyu Zhang, Zhenhui Peng, Xiaomeng Fan, Xiaojuan Ma, Quan Li. PromotionLens: Inspecting Promotion Strategies of Online E-commerce via Visual Analytics. In *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2022)*.
VIS 2022 · Full Paper

Conference Presentations

ForcePinch: Force-Responsive Spatial Interaction for Tracking Speed Control in XR.
UIST 2025, Busan, South Korea.

FocusFlow: 3D Gaze-Depth Interaction in Virtual Reality Leveraging Active Visual Depth Manipulation.
CHI 2024, Honolulu, Hawaii, USA.

PromotionLens: Inspecting Promotion Strategies of Online E-commerce via Visual Analytics.
VIS 2022, Oklahoma City, Oklahoma, USA.

Honors and Awards

ShanghaiTech University Merit Student (top 2%) 2021
Meritorious Winner of COMAP's Mathematical Contest in Modeling (top 7%) 2021
Second Prize of Shanghai College Students Social Survey Competition 2019

Teaching

ShanghaiTech University, Shanghai, China

Teaching Assistant 2021 - 2022
Introduction to Information Science & Technology, Fall 2021.
Design Thinking and Social Design in China, Fall 2021.

Kedu No. 1 Primary School, Qiannan Buyi and Miao Autonomous Prefecture, China

Volunteer Teacher Jul. 2019

Providing general education courses to primary school students, including science, art, sports and adolescent education. Fieldwork on China's poverty reduction initiatives. [presentation video]

SKILLS

Computer Science: Data Visualization, Computer Graphics, AI&ML, Web Programming.

Research: Human-Centered Design, Quantitative & Qualitative Research, Interview, Iterative Design.

Frameworks and Tools: Unity, WebXR, ARKit, Blender, Cinema 4D, Adobe Ae, Figma.

Languages: Mandarin Chinese, English, Visualization. Python, C/C++, JavaScript.